```
(FILE 'USPAT' ENTERED AT 16:09:10 ON 09 SEP 1999)
L1           174 SEA 348/645/CCLS
L2        245078 SEA SATURAT?
L3          1540 SEA COLOR SATURAT?
L4             1 SEA COLOR SATURAT? PROCESS?
L5          1078 SEA CAMCORDER#
L6             0 SEA L1 AND L2(P)L5
L7             4 SEA L2(P)L5
L8             0 SEA L1 AND CAMCORDER
L9            88 SEA L1 AND COLOR(P)SATURATION
L10            7 SEA L1 AND COLOR(P)SATURATION(P)PIXEL#
L11            3 SEA L1 AND COLOR(P)SATURATION(P)PIXEL#(P)PROCESS?
L12           13 SEA COLOR SATURATION CORRECTION
L13            5 SEA L1 AND L12
L14            0 SEA 348/333,220/CCLS AND L12
L15          174 SEA 348/645/CCLS
L16            1 SEA L13 AND (CAMCORDER# OR CAMERA#)
L17            0 SEA CAMCORDER#(P)COLOR#(P)SATURAT?(P)CORRECT?
L18            2 SEA CAMCORDER#(P)SATURAT?(P)CORRECT?
L19            0 SEA 5,446,504/PN AND (CAMERA OR CAMCORDER)
L20           15 SEA PROCESS?(P)MODIF?(P)SATURAT?(P)COLOR(P)PIXEL#
L21            0 SEA PROCESS?(P)MODIF?(P)SATURAT?(P)COLOR(P)PIXEL#(P)(PREVI
EW
                   OR CAMCORDER OR MOTION)
L22          146 SEA 348/220,321,323/CCLS
L23            7 SEA 348/220,321,323/CCLS AND STILL(P)HORIZONTAL(4A)(REGIST
ER
                   OR READOUT)
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     (FILE 'USPAT' ENTERED AT 16:09:10 ON 09 SEP 1999)
L1           174 SEA 348/645/CCLS
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L11            3 SEA L1 AND COLOR(P)SATURATION(P)PIXEL#(P)PROCESS?
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L16            1 SEA L13 AND (CAMCORDER# OR CAMERA#)
L17            0 SEA CAMCORDER#(P)COLOR#(P)SATURAT?(P)CORRECT?
L18            2 SEA CAMCORDER#(P)SATURAT?(P)CORRECT?
L19            0 SEA 5,446,504/PN AND (CAMERA OR CAMCORDER)
L20           15 SEA PROCESS?(P)MODIF?(P)SATURAT?(P)COLOR(P)PIXEL#
L21            0 SEA PROCESS?(P)MODIF?(P)SATURAT?(P)COLOR(P)PIXEL#(P)(PREVI
EW
                   OR CAMCORDER OR MOTION)
L22          146 SEA 348/220,321,323/CCLS
L23            7 SEA 348/220,321,323/CCLS AND STILL(P)HORIZONTAL(4A)(REGIST
ER
                   OR READOUT)
L24            0 SEA CO348/220 AND STILL
L25            2 SEA 348/220/CCLS AND STILL(P)CAPTURE#(P)(BURST OR CONTINUO
US)
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US PAT NO: 5,452,017 [IMAGE AVAILABLE] L20: 7 of 15
TITLE: Method and apparatus for electronic image color modification using hue and saturation levels

DETDESC:

DETD(19)

Thus far described, the system of FIG. 3 provides an efficient apparatus for allowing an operator to **modify** the hue and **saturation** levels of an electronic video image, initially represented in terms of red, green and blue components. By converting the three-component primary **color** input values into two-component hue and **saturation** values, less memory is required while maintaining high resolution and execution times are enhanced over systems which directly manipulate the three-component primary **color** values. Furthermore, by extracting brightness and representing hue and **saturation** by a full 8-bits throughout the system, high resolution is maintained. With hue and **saturation** each represented by 8-bits, a resolution of better than 0.5% is achieved. Look-up tables are utilized to achieve maximum **processing** speed. Although described in terms of a single trio of red, green and blue input values, the apparatus of FIG. 3 sequentially operates on thousands of red, green and blue input values for each frame of a video image. To further increase **processing** speed, parallel **processing** technologies may be employed to simultaneously **process** two or more **pixels** of an input electronic **color** image.

freeze (p) interpolat?

US PAT NO: 5,226,114 [IMAGE AVAILABLE] L8: 18 of 62

SUMMARY:

BSUM(3)

There are many applications where one desires to display a single frame of a television image, such as in **freeze** frame displays, or for photographic capture of a television image. Another related application is to convert interlaced video signals into. . . within a frame, combining the two fields directly to form the frame causes significant blurring. Consequently, the most widely used **interpolation** approach is to repeat each line of a field to produce a frame with the proper aspect ratio (zero order **interpolation**). Another approach is to average adjacent lines in one field to produce the lines in the other field (first order **interpolation**).

SUMMARY:

BSUM(4)

According to the invention, a second field is **interpolated** from a first field of an interlaced frame for higher resolution **freeze** frame displays or for improved resolution television sets. Preferably small segments of adjacent raster scan lines of a given field are assumed to be related by a spatially varying line shift velocity vector, using motion estimation to **interpolate** the second field, pixel-by-pixel.

US PAT NO: 5,226,044 [IMAGE AVAILABLE] L8: 19 of 62

DETDESC:

DETD(7)

The . . . the 8-bit parallel output of the PCM sample formatter for voice switch detection. This test signal is subjected to the **interpolation** process at the encoder and monitored for on/off format degradation at the decoder. Since the test signal may experience front-end clipping due to excessive loading and **freeze** out, the test signal generator and alarm monitor provide a means for detecting such degradation.

CLAIMS:

CLMS(8)

8. . . . the means for delaying comprises a fixed delay and a variable delay wherein the fixed delay compensates for digital speech **interpolation** assignment message connection delay and the variable delay postpones the onset of overload channel formation and **freeze** out wherein the n-bit samples enter the variable delay if a transmission c

US PAT NO: 5,226,114 [IMAGE AVAILABLE] L6: 2 of 13
TITLE: Television pictures

SUMMARY:

BSUM(4)

According to the invention, a second field is **interpolated** from a first field of an interlaced frame for higher resolution **freeze** frame displays or for improved resolution television sets. Preferably small segments of adjacent raster scan lines of a given field are assumed to be related by a spatially varying line shift velocity vector, using **motion** estimation to **interpolate** the second field, **pixel**-by-**pixel**.